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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,386	05/29/2001	Anke Bodicker	739-X01-003	7495

27317 7590 06/28/2005

FLEIT KAIN GIBBONS GUTMAN BONGINI & BIANCO
COURVOISIER CENTRE II, SUITE 404
601 BRICKELL KEY DRIVE
MIAMI, FL 33131

EXAMINER

LU, TOM Y

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,386

Applicant(s)

BODICKER ET AL.

Examiner

Tom Y. Lu

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Request for Continued Examination filed on 4/7/2005 has been entered.
2. Upon entry of the Request for Continued Examination, the amendment and written response filed on 2/9/2005 has been entered and considered.
3. Claims 1-39 have been cancelled.
4. Claims 40-58 have been added.
5. Claims 40-58 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 40-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Hilton et al (U.S. Patent No. 5,452,416).
 - a. Referring to Claim 40, Hilton discloses a method for screening medical cases (column 2, line 18, the automated system is implemented based on a method for screening medical cases) comprising the steps of: storing a multiplicity of medical cases (each patient is assigned with a patient identifier to represent a MRI examination, which the examiner considers as a medical case, column 8, line 40-44, and there are multiple patients stored in the database) each of which contain a group of images (column 4, lines 40-41) of a particular portion of a patient's

anatomy (column 4, line 42), the views of the images of all groups for all medical cases being the same (all images have same sizable views); establishing a preselected order of the medical cases (it shows in the figure 6, the patient medical cases are listed in a column in Patient d.B, which implies a preselected order of the medical cases are established); providing a user interface (column 5, line 40) with a set of icons (column 5, line 46) each representing a specification for a designation of a particular view of an image of the group of images and for the processing thereof (column 9, lines 27-34); establishing a common workflow (working memory 33, column 5, line 65) containing a plurality of serially arranged data fields (ROOMNAME.XXX are serially arranged as shown in figure 6); interrelating the common workflow with the medical cases to screen orderly one by one (by clicking the NEXT button on the user interface 14a as shown in figure 3, the image will be screened orderly one by one. Note the functionality of the NEXT button is detailed at column 11, lines 34-39); preprogramming a sub-set of the set of icons into a preselected order corresponding to the serially arranged data fields of the common workflow by the user selecting the sub-set of icons and the order (the examiner interprets the manipulation buttons as the claimed "sub-set", and all buttons as shown in figure 3 are the claimed "set of icons", and the manipulation buttons are preprogrammed in a preselected order as shown in figure 3, and they are corresponding to the serially arranged ROOTNAME.XXX image files); loading the specifications represented by the ordered sub-set of icons of the set of icons into the corresponding data fields of

the common workflow (for example by clicking on the zoom button, the image will expand or shrink, see the specification format in figure 3); coupling the user interface to the common workflow whereby a user can control stepping through the serial data fields (the user interface is coupled to the common workflow for a user to control the stepping of the serial data fields by clicking on the control buttons on the right as shown in figure 3, for example clicking the NEXT button); in response to a user stepping to a data field, retrieving from the store of medical cases the specified particular view of an image of the current medical case being screen, processing as specified by the data field, and storing in the data field of the common workflow (the image files are first stored in the working memory before they are displayed on the screen upon calling of the control functions, such as specifying a view, like zoom-in in the image manipulation icons); whereby an ordered sequence of preselected specified images of each medical case can be viewed, one by one, as derived from the stored groups of images for all said medical cases (by clicking on the NEXT button, the images will be viewed one by one if the images were not already displayed. Note although, Hilton does not explicitly teach the images are displayed one by one, it is understood in any graphical operating system contains such capability. Additionally, the zoom function can expand the image large enough to cover the entire screen, and when the NEXT button is activated, the image will be viewed one by one); displaying, for viewing by a user, each ordered sequence of said preselected specified images derived from the stored images of each said medical case, in order, one after the

other (a “monitor” system is included in Hilton for displaying); and controlling the stepping through the serial arranged data fields to view the ordered sequence of said preselected specified images derived from the stored images of each medical case by a user initiating one a single action input to move the workflow from each current serial data field to the next successive serial data field (by clicking the NEXT button, the user has the capability to control the current serial data field to the next successive serial data field).

- b. Referring to Claim 41, Hilton discloses wherein each icon of the set of icons specifies one of an image, an image view, an image resulting from processing of an image according to a preselected algorithm, a tiling of images, activation of the marking of a region of interest, entry of a diagnosis, entry of an annotation, an image resulting from a computer aided diagnosis function performed on an image, and activation of the display of computer assisted diagnosis markers (the buttons on the right side of the user interface in figure 3 compensate all the claimed functionalities).
- c. Referring to Claim 42, Hilton discloses providing a screen coupled to the user interface, displaying the set of icons of the screen, providing on the screen a sequence bar, and carrying out the preprogramming step by drag-and-drop of the icons on the sequence bar (see figure 14b for the screen display, and user interface buttons on the right, and the sequence bar in Axial T2 image, and icons can be drag-and-drop into the images, column 17, lines 3-11).

- d. Referring to Claim 43, Hilton discloses wherein the single action input is effected by one of pressing key, touching a screen at a designated point, and speaking to a speech recognition component (the single action in Hilton is initiated by pressing the cursor key, such as clicking on a mouse button).
- e. Referring to Claim 44, Hilton discloses highlighting an image being viewed by a graphical input tool included in the user interface (highlighting an image being viewed by a mouse click is an inherent feature in any graphical user interface system).
- f. Referring to Claim 45, Hilton discloses entering and storing an annotation for one of a medical case of an image being viewed (column 17, line 1).
- g. Referring to Claim 46, Hilton discloses maintaining a stack of medical cases interrelated with the workflow (see figure 6).
- h. With regard to Claim 47, see explanation in Claim 40.
- i. With regard to Claim 48, see explanation in Claim 41.
- j. With regard to Claim 49, see explanation in Claim 42.
- k. With regard to Claim 50, see explanation in Claim 43.
- l. With regard to Claim 51, see explanation in Claim 44.
- m. With regard to Claim 52, see explanation in Claim 45.
- n. With regard to Claim 53, see explanation in Claim 46.
- o. Referring to Claim 54, Hilton discloses wherein the single action in put is used to step from one medical case to the next succeeding medical case (Hilton implies the system can go from one patient to another patient through mouse clicking).

- p. Referring to Claim 55, Hilton discloses wherein pointers are provided to indicate which medical case and which specified image of the ordered sequence of said preselected specified images is being currently viewed by a user (column 14, lines 48-61).
- q. Referring to Claim 56, Hilton discloses storing the preprogrammed sub-set of the icons and storing a user ID (the icons are inherent stored in a memory in a graphical user interface system, and the user IDs are stored in the database and the working memory, see figure 6).
- r. Referring to Claim 57, Hilton discloses initiating via the user interface one of editing the preprogramming and moving the next medical case for viewing (the image manipulation buttons in figure 3 are for image editing, and the NEXT button is for moving to the next medical case for viewing).
- s. Referring to Claim 58, Hilton discloses providing an indication the medical case and specified image being currently viewed by a user (column 14, lines 48-61).

Conclusion

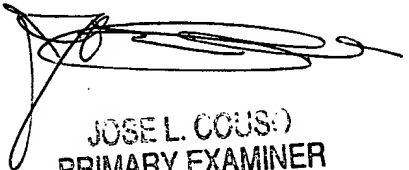
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571) 272-7393. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu



JOSE L. COUSO
PRIMARY EXAMINER